IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (currently amended): An optoelectronic module comprising:

an optical fiber block;

a plurality of optical fibers having fiber facets terminating on an end face of said optical fiber block;

a submount disposed adjacent to said end face of said optical fiber block;

an edge emitting laser diode array disposed on said submount in optical alignment with said fiber facets of said optical fibers; ~~and~~

a cap disposed on said submount and detachably adjoining said end face of said optical fiber block such that said cap encloses said edge emitting laser diode array and said fiber facets therein; and

a resin encapsulating said array in said cap, said resin being substantially transparent to light wavelengths passing between said array and said fiber facets, wherein

said cap has an injection hole therein for introducing said resin in an initially fluid uncured state into a chamber formed by said cap, said submount and said end face of said optical fiber block such that the fluid resin is contained by said cap in said uncured state.

Claim 2 (original): The module of claim 1 wherein said cap is joined in hermetic sealing relationship to said submount and to said end face.

Claim 3 (currently amended): The module of claim 1 wherein said cap comprises a cap bottom bonded to said submount and encompassing said array, and a cap end surface bonded to said end face of said optical fiber block.

Claim 4 (currently amended): The module of claim 1 wherein said cap comprises a cap side wall portion bonded to said submount, and a separate cap cover bonded to said cap side wall.

Claim 5 (canceled)

Claim 6 (currently amended): The module of claim [[5]] 1 wherein said resin comprises a silicone resin.

Claim 7 (currently amended): The module of claim [[5]] 1 wherein said resin encapsulates said fiber facets on said end face.

Claim 8 (canceled)

Claim 9 (currently amended): The module of claim [[5]] 1 wherein said resin comprises a relatively compliant inner resin encapsulating said array and a relatively hard outer resin covering said inner resin.

Claim 10 (currently amended): An optoelectronic module comprising:

an optical fiber block;

a plurality of optical fibers having fiber facets terminating on an end face of said optical fiber block;

a submount having one of a surface emitting laser diode and a photo diode array disposed thereon; ~~and~~

a spacer interposed between said submount and said end face such that said spacer encloses said diode array and said fiber facets; and

a resin encapsulating said diode array in said spacer, said resin being substantially transparent to light transmissions between said diode array and said fiber facets, wherein said spacer is bonded to said submount and to said end face for sealing said diode array and said fiber facets, and said spacer has a resin injection port therein for admitting a sealing resin into a chamber formed by said spacer between said submount and said end face.

Claim 11 (original): The module of claim 10 wherein said diode array has a top surface facing said end face and a plurality of diode elements on said top surface, and wire bonds arcing from said top surface to connect said diodes to conductors on said submount, wherein said spacer has a spacer width sufficient to accommodate said diode array and said wire bonds between said submount and said end face.

Claim 12 -14 (cancelled)

Claim 15 (currently amended): The module of claim [[14]] 10 wherein said resin injection port is sealed with said sealing resin thereby to seal said chamber.

Claim 16 (previously presented): The module of claim 10 wherein said spacer is bonded with an epoxy resin to each of said submount and said end face.

Claim 17 (original): The module of claim 10 wherein said spacer is hermetically sealed to said submount and to said end face.

Claim 18 (currently amended): A method of sealing an optoelectronic assembly in a transmitter or receiver module comprising:

providing an optical fiber block supporting a plurality of optical fibers each having a fiber facet terminating on an end face of said block to define a fiber facet array;

providing a submount having a top surface and a side surface;

bonding a laser diode array chip having a laser diode array to said top surface of said submount;

providing a cap configured to be disposed on said submount and adjoin to said end face of said optical fiber block such that said cap encloses said laser diode array and said fiber facet array therein;

affixing said cap to said submount;

optically aligning said diode array with said fiber facet array; and

bonding said submount to said optical fiber block, wherein said cap cooperates with said fiber block to define a fluid containment enclosure encompassing said laser diode array chip, and said method further comprising applying liquid resin through a hole in said fluid containment enclosure to encapsulate said laser diode array chip.

Claim 19 (previously presented): The method of claim 18 wherein said optically aligning comprises placing said side surface and said end surface in contact with said fiber block during said aligning.

Claim 20 (cancelled)

Claim 21 (previously presented): The method of claim 18 wherein said cap has three side walls and a top, said end face providing a fourth wall and said submount providing a bottom thereby to define a chamber containing said laser diode array and said fiber facet array.

Claim 22 (currently amended): The method of claim 21 wherein said cap has said ~~a~~ hole through said top for admitting liquid resin into said chamber.

Claim 23 (original): The method of claim 22 wherein said hole is sealed with resin.

Claim 24 (currently amended): The method of claim 21 wherein said cap comprises a cap sidewall portion and a separate cap top, and said affixing comprises affixing said cap sidewall portion to said submount to thereby define with said end face said ~~a~~ fluid containment enclosure for containing liquid resin over said diode array, and then affixing said cap top to said cap sidewall thereby to define said chamber.

Claim 25 (currently amended): A method of sealing an optoelectronic assembly in a transmitter or receiver module comprising:

providing an optical fiber block supporting a plurality of optical fibers each having a fiber facet terminating on an end face of said block to define a fiber facet array;

providing a submount;

bonding a diode array chip having a laser diode array to said submount;

providing a containment dam configured to be interposed between said submount and said end face such that said containment dam encloses said diode array and said fiber facets;

affixing said containment dam to said submount for defining a fluid containment enclosure encompassing said diode array chip;

assembling said submount, said containment dam and said optical fiber block with said diode array chip in optical alignment with said fiber facet array; and

applying liquid resin to encapsulate said diode array chip, wherein said containment dam cooperates with said optical fiber block to make a closed chamber containing said diode array and said fiber facet array, said closed chamber including a hole or opening for admitting said liquid resin into said closed chamber.

Claim 26 (previously presented): The method of claim 25 wherein said assembling comprises bonding said containment dam to said fiber block.

Claim 27 (previously presented): The method of claim 25 wherein said assembling comprises bonding said submount and said containment dam to said fiber block.

Claim 28 (previously presented): The method of claim 25 wherein said containment dam has one or more end surfaces and said assembling comprises bonding said one or more end surfaces to said fiber block.

Claim 29 (previously presented): The method of claim 25 wherein said submount has a side surface for bonding to said fiber block, said containment dam has one or more end surfaces, and said affixing comprises aligning said one or more end surfaces in coplanar relationship with said side surface.

Claim 30 (previously presented): The method of claim 29 wherein said assembling comprises bonding said side surface and said one or more end surfaces to said end face of said fiber block.

Claim 31 (cancelled)

Claim 32 (currently amended): The method of claim 25 wherein said containment dam comprises a cap having three side walls and a cap top, said end face providing a fourth wall and said submount providing a bottom thereby to define said ~~a~~ closed chamber containing said diode array and said fiber facet array.

Claim 33 (original): The method of claim 32 wherein said cap top is unitary with said side walls and further comprising a hole through said cap for admitting said liquid resin into said closed chamber.

Claim 34 (original): The method of claim 33 wherein said hole is through said cap top.

Claim 35 (previously presented): The method of claim 32 wherein said cap comprises a cap sidewall and a separate cap top, and said affixing a containment dam comprises affixing said cap sidewall to said submount to thereby define said fluid containment dam in cooperation with said end face.

Claim 36 (previously presented): The method of claim 35 further comprising affixing a cap top to said cap sidewall thereby to define a closed chamber containing said laser diode array and said fiber facet array.

Claim 37 (original): The method of claim 25 wherein said containment dam is at least partly defined by a cap having a plurality of cap side walls and a cap top and said cap cooperates with said optical fiber block to make a closed chamber containing said diode array and said fiber facet array.

Claim 38 (previously presented): The method of claim 25 wherein said containment dam is at least partly defined by a spacer interposed between opposing surfaces of said submount and said fiber block.

Claim 39 (previously presented): The method of claim 38 wherein said spacer has first and second end surfaces, and wherein said affixing comprises affixing said first of said end surfaces to said submount and said assembling comprises bonding said second of said end surfaces to said fiber block.

Claim 40 (previously presented): The method of claim 39 wherein said bonding said second of said end surfaces comprises bonding said second of said end surfaces to said end face of said fiber block.

Claim 41 (cancelled)

Claim 42 (currently amended): The method of any of claims 38 to 40 wherein said spacer has ~~an~~ a side opening and said applying liquid resin is performed after said affixing and assembling by introducing liquid resin through said side opening.

Claim 43 (previously presented): The method of claim 42 further comprising sealing said side opening of the spacer with resin.

Claim 44 (currently amended): An optoelectronic data communication module comprising:

a housing module with electronic transmitter or receiver circuits in said housing module;

an optical fiber block having optical fibers having fiber facets terminating on an end face of said block;

a submount having one of a light emitter diode array and a light detector diode array mounted thereon in optical alignment with said facets and operatively connected to said circuits; and

a chamber forming device configured to form a chamber with said submount and said end face of said block such that said chamber forming device encloses said diode array and said facets in said chamber, wherein:

said chamber forming device also defines a fluid containment dam about said array and the chamber includes a hole or opening therein for admitting a liquid epoxy resin into fluid containment dam, and

wherein said array is encapsulated in said epoxy resin contained by said dam.

Claim 45 (original): The module of claim 44 wherein said submount is also bonded to said fiber block.

Claim 46 (original): The module of claim 44 wherein said submount is bonded to said fiber block and said chamber defining means is also bonded to said fiber block.

Claim 47 (currently amended): The module of claim 44 wherein said chamber forming device ~~defining means~~ is intermediate to said submount and said fiber block and said submount is supported to said fiber block by said chamber forming device ~~defining means~~.

Claim 48 (currently amended): The module of claim 44 wherein said submount has a side surface and said chamber forming device ~~defining means~~ has one or more end surfaces coplanar with said side surface such that both said side surface and said one or more end surfaces can contact said end face whereby alignment of said array to said facets is facilitated and said side surface and said one or more end surfaces are bonded to said fiber block for increased mechanical strength.

Claim 49 (currently amended): The module of claim 48 wherein said chamber forming device ~~defining means~~ is bonded in substantially sealing engagement to said submount and said one or more end surfaces is bonded in substantially sealing engagement with said end face such that said array and said facets are enclosed in a sealed chamber.

Claim 50 (cancelled)

Claim 51 (currently amended): The module of claim 44 to 49 wherein said chamber forming device ~~defining means~~ is selected from the group comprised of a cap ~~enclosure~~ and a frame ~~enclosure~~.

Claim 52 (currently amended): The module of claim 48 wherein said chamber forming device ~~defining means~~ is a cap and said one or more end surfaces is an end surface shaped as an inverted U relative to said submount.

Claim 53 (cancelled)

Claim 54 (currently amended): A method of making an optoelectronic assembly in a transmitter or receiver module comprising:

providing an optical fiber block supporting a plurality of optical fibers each having a fiber facet terminating on an end face of said block to define a fiber facet array;

providing a submount;

providing a containment dam configured to be disposed on said submount and adjoin said end face of said optical fiber block such that said containment dam encloses said edge emitting laser diode array and said fiber facets therein, said containment dam having a bottom surface and at least one side surface;

bonding a diode array chip to said submount;

bonding said bottom surface of the containment dam to said submount; and

bonding one or both of said submount and said one or more side surfaces to said fiber block with said diode array chip in optical alignment with said fiber facet array, wherein said containment dam cooperates with said end face to define a fluid containment enclosure encompassing said diode array chip and the method further comprising applying liquid sealing resin through a hole or opening in said fluid containment enclosure to said diode array chip thereby to encapsulate said chip in said resin.

Claim 55 (currently amended): The method of claim 54 wherein said containment dam comprises a cap having three side walls and a cap top and said one or more side surfaces comprise end surfaces of said side walls and said cap top, said end face providing a fourth

wall and said submount providing a bottom thereby to define a chamber containing said diode array chip and said fiber facet array.

Claim 56 (currently amended): The method of claim 55 wherein said cap comprises a cap sidewall portion and a separate cap top, and said affixing comprises affixing said cap sidewall portion to said submount to thereby define with said end face said fluid containment enclosure, and then affixing said cap top to said cap sidewall thereby to define said chamber.

Claim 57 (original): The method of claim 54 wherein said containment dam comprises a sidewall portion terminating in two said end surfaces.

Claim 58 (original): The method of claim 57 wherein said two end surfaces are coplanar with each other.

Claim 59 (original): The method of claim 58 wherein said two end surfaces are also coplanar with a bonding surface of said submount such that said end surfaces and said bonding surface are all bonded to said end face of said fiber block.

Claim 60 (cancelled)